

Amendments to the Claims

Please amend the claims as detailed below. This listing of claims will replace all prior versions, and listings, of claims in the application:

1-16. (Cancelled)

17. (Currently amended) A storage appliance comprising:

a network interface;

a storage medium; and

a controller coupled to the network interface and the storage medium and configured to:

~~to~~ establish a root partition on the storage medium, the root partition defining a plurality of characteristics of an array group that includes a plurality of array partitions, the plurality of characteristics to include a type of the array group, which indicates how data is distributed across the plurality of array partitions, or a parity rule of the array group[.];

~~to~~ establish an array partition on the storage medium, the array partition being one of the plurality of array partitions[.];

~~to~~ receive, via the network interface, a data access command multicast to the plurality of array partitions[.]; ~~and~~

~~to~~ determine that the data access command pertains to the array partition based at least in part on the plurality of characteristics;

receive, via the network interface, a response to the data access command; and

disregard the data access command based at least in part on the receipt of the response via the network interface.

18. (Currently amended) The storage appliance of claim 17, wherein the controller is further configured to:

~~to~~ receive, via the network interface, a plurality of partition commands from a host; and

~~to~~ establish the root partition and the array partition based at least in part on the plurality of partition commands.

19. (Previously presented) The storage appliance of claim 17, wherein the plurality of characteristics includes a multicast set associated with the array group.

20. (Currently amended) The storage appliance of claim 19, wherein the controller is further configured to:

receive a multicast set command from a host via the network interface~~[[,]]~~; and ~~to~~ establish the multicast set associated with the array group based at least in part on the multicast set command.

21. (Previously presented) The storage appliance of claim 17, wherein the data access command is multicast to the plurality of array partitions using an Internet Protocol address.

22. (Canceled)

23. (Previously presented) The storage appliance of claim 17, wherein the plurality of characteristics includes the type of the array group and a description of the plurality of array partitions and the controller is further configured to determine that the data access command pertains to the array partition based at least in part on the type of the array group and the description of the plurality of array partitions.

24. (Previously presented)The storage appliance of claim 23, wherein the type is a stripe and the plurality of characteristics further includes a length of the stripe.

25. (Previously presented)The storage appliance of claim 17, wherein the plurality of characteristics includes the parity rule of the array group.

26. (Previously presented)The storage appliance of claim 17, wherein the plurality of array partitions are associated with a plurality of logical block addresses (LBAs) and the controller is further configured

to calculate, based at least in part on the plurality of characteristics of the array group defined in the root partition, which LBAs of the plurality of LBAs are associated with the array partition.

27. (Previously presented)The storage appliance of claim 17, wherein the controller is configured to receive the data access command from a host and the controller is further configured

to transmit, via the network interface, data directly to another array partition of the plurality of array partitions based at least in part on the data access command.

28. (Currently amended) A method comprising:

establishing, on a storage medium, a root partition having a plurality of characteristics associated with an array group that includes a plurality of array partitions, the plurality of characteristics including a type of the array group, which indicates how data is distributed across the plurality of array partitions[.];

establishing, on the storage medium, an array partition of the plurality of array partitions[.];

receiving, via a network interface, a data access command multicast to the plurality of array partitions[.]; ~~and~~

determining that the data access command pertains to the array partition based at least in part on the plurality of characteristics;

receiving, via the network interface, a response to the data access command;
and
disregarding the data access command based at least in part on the receiving of
the response via the network interface.

29. (Cancelled)

30. (Previously presented)The method of claim 28, wherein the plurality of characteristics includes a multicast set associated with the array group.

31. (Previously presented)The method of claim 28, wherein the data access command is multicast to the plurality of array partitions using an Internet Protocol address.

32. (Canceled)

33. (Currently amended) The method of claim 28, wherein the plurality of characteristics includes a description of the plurality of array partitions and said determining that the data access command pertains to the array partition is based at least in part on the type of the ~~RA-array~~ group and the description of the plurality of array partitions.

34. (Previously presented)The method of claim 33, wherein the type is a stripe and the plurality of characteristics further includes a length of the stripe.

35. (Previously presented)The method of claim 28, wherein the plurality of characteristics includes a parity rule.

36. (Currently amended) A machine-accessible storage medium having instructions, which, when executed, results in ~~the a~~ machine:

establishing a root partition on a storage medium, the root partition defining a plurality of characteristics of an array group that includes a plurality of array partitions, the plurality of characteristics including a type of the array group, which indicates how data is distributed across the plurality of array partitions, or a parity rule of the array group[.];

establishing an array partition on the storage medium, the array partition being one of the plurality of array partitions[.];

receiving, via a network interface, a data access command multicast to the plurality of array partitions[.]; and

determining that the data access command pertains to the array partition based at least in part on the plurality of characteristics;

receiving a response to the data access command; and
disregarding the data access command based on the receipt of the response by the machine.

37. (Previously presented)The machine-accessible storage medium of claim 36, wherein the instructions, when executed, further results in the machine:

receiving, via the network interface, one or more commands from a host; and

establishing the root partition and the array partition based at least in part on the received one or more commands.

38. (Previously presented)The machine-accessible storage medium of claim 36, wherein the plurality of characteristics includes a multicast set associated with the array group.

39. (Previously presented)The machine-accessible storage medium of claim 36, wherein the data access command is multicast to the plurality of array partitions using an Internet Protocol address.

40-43. (Canceled)

44. (Previously presented) The method of claim 28, further comprising:

receiving, via the network interface, one or more commands from a host; and
providing the root partition and the array partition based at least in part on the received one or more commands.

45. (Previously presented) The storage appliance of claim 17, wherein the plurality of characteristics includes the type of the array group, and the type comprises a RAID type 0, 1, 4, or 5.

46. (Currently amended) The storage appliance of claim 17, wherein the controller is further configured to:

~~to~~ receive another data access command;

buffer data transmitted in the other data access command;

~~to~~ transfer, via the network interface based at least in part on the other data access command, data from the array partition to a parity partition of the plurality of array partitions; and

~~to~~ save the buffered data in the array partition.